



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,569	06/24/2003	Jeffrey T. Hickey	K-1951	1715

7590

03/09/2005

Mr. Kevin P. Weldon  
Patent Attorney  
Kennametal Inc.  
P.O. Box 231  
Latrobe, PA 15650

EXAMINER

PAHNG, JASON Y

ART UNIT

PAPER NUMBER

3725

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

61

<b>Office Action Summary</b>	<b>Application No.</b> 10/602,569	<b>Applicant(s)</b> HICKEY, JEFFREY T.	
	<b>Examiner</b> Jason Y Pahng	<b>Art Unit</b> 3725	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/17/2003</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase, "in other opposite close contact," is not clear and unnecessarily confusing.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roozeboom et al. (US 6,840,471) in view of Balvanz et al (US 6,34,375).

With regard to claims 1 and 11, Roozeboom discloses substantially all of the claimed structure including:

1. an elongate tool body (76) having opposite ends (78, 80) wherein one end (80) is connected to the rotating drum (61) and having a distal end (78) opposite to the one end (80); see Figure 5C;

2. a wear pad (92) including a central pad body having an impingement face and an opposite attachment face (against 84); see Figure 5C;
3. a pair of flanges (against 88) extending away from the attachment face (against 84); and
4. each one of the flanges having an interior flange surface (against 88).

Roozeboom does not disclose a wear-resistant volume for the wear pad. In a closely related art, Balvanz discloses a wear pad with a wear-resistant volume (Figure 2 – shaded region) in order to protect wear pad's impingement face. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Roozeboom with a wear-resistant volume in order to protect wear pad's impingement face, as taught by Balvanz.

With regard to claims 2 and 19, Balvanz's impingement face includes a plurality of tungsten carbide particles (Figure 2 – shaded region). The tungsten carbide particles are considered hard particles.

With regard to claims 3, it appears that Balvanz's impingement face is covered by the hard particles (Figure 2) in a range of about 65 – 90 percent of the area.

With regard to claims 4, it appears that Balvanz's impingement face is covered by the hard particles (Figure 2) in at least 80 percent of the area.

With regard to claim 6, Roozeboom discloses a pair of opposite side edges (Figure 5C). The pair of side edges are parallel to the flanges (against 88) and contiguous with the flanges.

With regard to claims 7, 12, and 16, Roozeboom discloses a head portion (Figure 5C) having opposite side surfaces.

With regard to claims 8, 13, and 17, as well as can be understood, Roozeboom discloses a head portion with a lower surface (Figure 15) wherein the attachment face of the wear pad is in close contact with the lower surface<sup>3</sup> of the head portion.

With regard to claims 9, 14, and 18, Roozeboom discloses a side edge and an impingement face intersecting to form a cutting edge (Figure 5C).

With regard to claim 10, Roozeboom discloses a wear pad. This is a product by process claim. Therefore, the process of how the wear pad is attached to the elongate tool body is not given a significant weight.

With regard to claim 15, Roozeboom discloses a space defined between at least a portion of the flange interior surfaces and at least a portion of the attachment face being occupied by a portion of the elongate tool body (Figure 5C).

With regard to claim 20, Roozeboom discloses a wear pad. This is a product by process claim. Therefore, the process of how the wear pad is formed is not given a significant weight.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roozeboom et al. (US 6,840,471) in view of Balvanz et al (US 6,34,375) as applied above, further in view of Hallissy (US 4,715,450). Roozeboom (as modified by Balvanz) discloses substantially all of the claimed structure with the exception of the wear-resistant volume containing about 75 – 95 weight percent hard particles. In a closely related art, Hallissy discloses a wear-resistant volume containing 88.5 percent tungsten

carbide (column 4, lines 27-38) in order to better able to absorb impact. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Roozeboom (as modified by Balvanz) with a wear-resistant volume containing 88.5 weight percent tungsten carbide, which is in the range of 75 – 95 weight percent, in order to better able to absorb impact, as taught by Hallissy.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Y Pahng whose telephone number is 571 272 4522. The examiner can normally be reached on 9:00 AM - 7:00 PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571 272 4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/602,569

Page 6

Art Unit: 3725

JYP

A handwritten signature in black ink, appearing to read 'Derris H. Banks', with a long horizontal line extending to the right.

DERRIS H. BANKS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700